

## Patent Abstracts of Japan

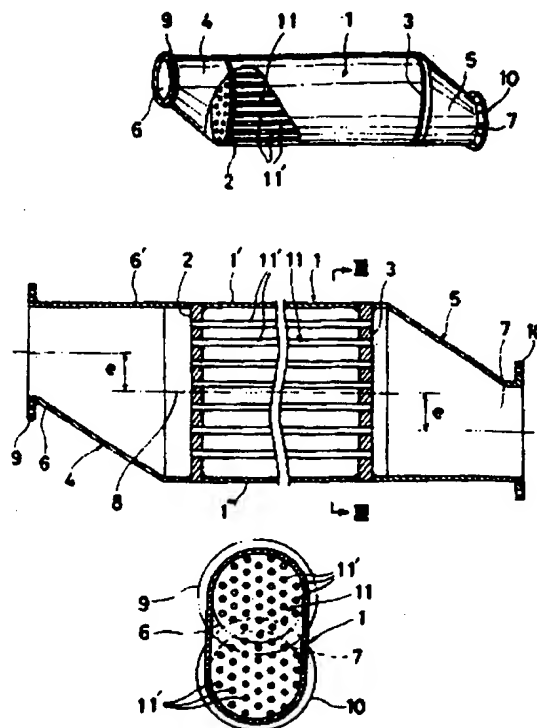
PUBLICATION NUMBER : 59109776  
 PUBLICATION DATE : 25-06-84  
 APPLICATION DATE : 14-12-82  
 APPLICATION NUMBER : 58004414

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INT.CL. : F28D 7/00 F28F 9/00

TITLE : MULTIPLE HEAT EXCHANGER



**ABSTRACT :** PURPOSE: To simplify the fitting and replacement of heat exchanger tubes, by arranging an inlet of fluid and an outlet thereof so that they are positioned perpendicular to the axial line of the bundle of the heat exchanger tubes, being reverse in direction to each other and deviated from each other, and by arranging each heat exchanger tube within an area surrounded by the inner-peripheral walls of said inlet and outlet of fluid when viewed from the axial direction thereof.

**CONSTITUTION:** A fluid inlet tube 6 in one water chamber 4 of two water chambers 4 and 5 is made eccentric by a dimension (e) from the longitudinal axial line 8 of a drum cell 1 in the direction perpendicular to said axial line, while a fluid outlet tube 7 in the other water chamber is made eccentric by an appropriate dimension (e) in the reverse direction to the decentering direction of said fluid inlet tube 6 in relation to the longitudinal axial line 8 of the drum cell 1. On the other hand, heat exchanger tubes 11' in a bundle 11 of heat exchanger tubes are arranged respectively in an area surrounded by the inner-peripheral wall of the fluid inlet tube 6 and in an area surrounded by the inner-peripheral wall of the fluid outlet tube 7, when viewed in the longitudinal axial direction of the bundle 11 of the heat exchanger tubes. By this constitution, one group of the heat exchanger tubes 11' can be put in and taken out of the fluid inlet tube 6 and the other in and out of the fluid outlet tube 7, and thus they can be fitted and replaced simply and quickly, while a heat exchanger can be made small in size and light in weight.

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